



April 25, 2014

Via Electronic Filing

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Re: *Written ex parte presentation, GN Docket No. 12-268; GN Docket No. 12-269*

Dear Ms. Dortch:

Mobile Future respectfully submits to the Commission the attached paper, “Lessons Learned: Canada’s Experience with Set-Asides and Caps in Spectrum Auctions” written by Paul Beaudry and Martin Masse, both former policy advisors to Canada’s Minister of Industry. The report studies the design and outcome of the past two Canadian spectrum auctions. Both auctions used restrictions in an attempt to establish a new wireless entrant, but subsequently resulted in wasted government resources, delayed spectrum deployment and lost revenues for the Treasury.

Specifically, Beaudry and Masse make the following observations with respect to the 2008 AWS spectrum auction, which used auction set-asides:

- It is highly doubtful that well-established regional providers would not have been willing to pay the fair market price for spectrum they needed to upgrade their networks.
- Similarly, regional cable players had compelling market incentives to bid (the ability to extend their triple play offering to a quadruple play that includes wireless).
- Of the three new entrants who secured licenses, none were successful.
 - Public Mobile was acquired by incumbent TELUS for nearly five times the purchase price of its spectrum licenses, essentially arbitraging its government-subsidized spectrum acquisition to secure a windfall;
 - Mobilicity filed for bankruptcy after the Canadian government rejected its similar acquisition by TELUS; and

- WIND Mobile's European backer has written off its investment.
- The 2008 set-aside spectrum sold at a discount of about 30% compared to the spectrum open to bidding by all parties.

After the spectrum set-aside failed in the 2008 auction, the Canadian government instead opted to impose a spectrum cap in the 2014 700 MHz auction, barring all incumbents from acquiring more than one of the "prime" blocks up for auction. It is still too soon to fully assess the outcome of this auction, but the report cites early cause for concern. The Canadian government has touted as a victory the fact that Quebecor secured licenses not only in its home market of Quebec, but also in Ontario, Alberta and British Columbia, all markets with no established fourth player. Yet Quebecor has made clear that the spectrum, which had no other significant bidder, was acquired for its "advantageous price," with the CEO publicly stating that it remains uncertain if it would "sit" on the spectrum or "do something with it." At this stage, few analysts expect Vidéotron, which is owned by Quebecor, to develop a network outside of Quebec. Additionally, the company acquired just a single 5x5 MHz block in these areas, which may limit the ability to deploy a standalone network without further spectrum acquisitions or other business plans.

Looking forward to the U.S. 600 MHz auction design, the report urges policymakers to consider that asymmetric rules regarding the acquisition of spectrum such as set-asides or spectrum caps prevent efficient competition and the optimal allocation of resources. Some players that might not otherwise have entered the market will be enticed to do so when offered privileged access. Even a faulty business plan can become promising when it is enabled by subsidies worth hundreds of millions of dollars. The misallocation of resources only becomes evident further down the road, when the business ventures hit a breaking point and cannot be artificially sustained any longer.

Fostering effective competition is critical for U.S. wireless consumers, but regulators must keep in mind that they cannot bring about actual competition beyond what the market can support. As the mobile market continues to evolve, making more spectrum available for wireless use is critical to fueling groundbreaking innovation, investment and adoption.

Pursuant to Section 1.1206 of the Commission's rules, a copy of this letter is being filed via ECFS with your office. Please do not hesitate to contact the undersigned with any questions.

Respectfully submitted,

/s/ Jonathan Spalter

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Lessons Learned:

Canada's Experience with Set-Asides and Caps in Spectrum Auctions

By Paul Beaudry and Martin Masse

April 2014

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Executive Summary

As the U.S. government prepares to auction spectrum in the 600 MHz band, those supporting set-asides and other exclusionary measures have pointed north to recent spectrum auctions in Canada to make their case. This paper, sponsored by Mobile Future, provides an overview of both the design and outcomes of the two most recent Canadian spectrum auctions – in the AWS band in 2008 and in the 700 MHz band in 2014 – to help illuminate the U.S. debate over how to craft upcoming spectrum auctions to best ensure pro-consumer and pro-innovation outcomes.

The analysis concludes that exclusionary auction rules, such as spectrum set-asides or caps, prevent efficient competition and hinder investment in the state-of-the-art wireless networks and services that consumers are demanding. These asymmetric rules essentially add up to public subsidies that are wasted on either established players who would have bid vigorously at full market value or lost to new entrants that, similar to the European experience with preferential rules, consistently fail.

Specifically, with regard to the **2008 AWS spectrum** auction:

- It is highly doubtful that well-established regional providers, such as MTS (Manitoba) and SaskTel (Saskatchewan) would not have been willing to pay the fair market price for spectrum they needed to upgrade their networks.
- Similarly, regional cable players, such as Vidéotron (Quebec) and EastLink (Atlantic Canada) had compelling market incentives to bid (the ability to extend their triple play offering to a “quadruple play” that includes wireless).
- Of the three new entrants who secured licenses, none were successful.
 - Public Mobile was acquired by incumbent TELUS for nearly five times the purchase price of its spectrum licenses, essentially arbitraging its government-subsidized spectrum acquisition to secure a windfall;
 - Mobilicity filed for bankruptcy after the Canadian government rejected its similar acquisition by TELUS; and
 - WIND Mobile’s European backer has written off its investment.
- The 2008 set-aside spectrum sold at a discount of about 30% compared to the spectrum open to bidding by all parties.

Specifically, with regard to the **2014 700 MHz spectrum** auction:

- Moving on from the failed set-aside experiment, the Canadian government instead opted to impose a spectrum cap, barring all incumbents from acquiring more than one of the “prime” blocks up for auction.
- Conducted in January and February of 2014, it is premature to declare these auctions successful. In fact, there are reasons for concern. The Canadian government has touted as a victory the fact that Quebecor secured licenses not only in its home market of Quebec, but also in Ontario, Alberta and British Columbia, all markets with no established fourth player. Yet Quebecor has made clear the spectrum, which had no other significant bidder, was acquired for its “advantageous price,” with the CEO publicly stating that it remains uncertain if it

would “sit” on the spectrum or “do something with it.” At this stage, few analysts expect Vidéotron, which is owned by Quebecor, to develop a network outside of Quebec.

In examining the real-world outcomes of preferential auctions, exclusionary rules tend to suppress investment in network infrastructure and to create a business culture of regulatory dependency. This misallocation of resources only becomes evident further down the road, when new business ventures hit a breaking point and can no longer be artificially sustained.

Although regulators can use auction restrictions to help increase the number of companies that have access to spectrum, experience proves time and again that regulators cannot bring about actual competition beyond what the market can support. As shown by the Canadian experience, subsidizing the entrance of new players into the mobile market while hampering the growth of existing providers does not lead to more competition. On the contrary, it leads to a waste of resources and delays the use of spectrum at a time when companies need more and more of it to answer consumer demand.

Introduction

Since 2008, the Canadian government has made the emergence of a new national wireless provider (or, at the very least, the emergence of a new provider in each of Canada’s regional markets) a central plank of its telecommunications policy agenda.

The main policy tool¹ used by the government² to achieve this goal has been to subsidize new entrants via spectrum set-asides and spectrum caps in the last two spectrum auctions: the 2008 AWS (2 GHz) auction and the 2014 700 MHz spectrum auction.³

As explained below, the competitive handicapping of incumbents has generally not succeeded in fostering more competition in the Canadian wireless market. To the extent it has, it can be argued that government intervention was unnecessary. Instead these policies have essentially wasted government resources and led to lost revenues for the Treasury at the expense of taxpayers.

The 2008 AWS Spectrum Auction

The 2008 AWS spectrum auction took place between May and July of 2008. In total 105 MHz of spectrum were up for auction, broken down as follows: 90 MHz of AWS

¹ In addition, the government has imposed mandatory roaming and tower-sharing rules on Canada’s three incumbents: Bell, TELUS and Rogers.

² In Canada, the allocation and regulation of radio spectrum is under the responsibility of Industry Canada, a department of the federal government.

³ For more information on spectrum use and management in Canada, see the Spectrum Management and Telecommunications section on Industry Canada’s website at <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/home>.

spectrum, 10 MHz of the PCS Expansion Band and the 5 MHz band at 1670-1675 MHz. One of the important features of the auction was that 40 out of the 90 MHz of AWS spectrum up for auction would be set aside for regional players and new entrants.

In the end, the three national incumbents all received licenses for AWS spectrum, as well as MTS and SaskTel, two well-established regional providers.⁴ In addition the following new entrants acquired spectrum:

- Wind Mobile: licensed AWS spectrum in every province aside from Quebec, and launched service in December 2009;
- Mobilicity: licensed AWS spectrum in Ontario, Alberta and British Columbia, and launched service in May 2010;
- Quebecor: licensed AWS spectrum throughout Quebec, and launched service with its Vidéotron brand in September 2010;
- EastLink: licensed AWS spectrum in eastern Canada, and launched service in February 2013;
- Shaw Communications: licensed AWS spectrum in western Canada and northern Ontario, but subsequently decided not to launch service; and
- Public Mobile: licensed PCS spectrum in the Greater Toronto and Hamilton Area, parts of the Niagara Region and Greater Montreal.

Proponents of the set-aside argued that without the set-aside, the incumbents would use their financial might to engage in predatory bidding and hoard all of the available spectrum. The set-aside, they argued, was therefore necessary to prevent the incumbents from foreclosing market entry.⁵

There are, however, several reasons why this argument did not adequately reflect the incentives at play. For one thing, if one incumbent outbid potential entrants on spectrum to prevent competition, the outcome would benefit other incumbents competing in the same market. The “free-rider” problem that would result from this acquisition acted as a powerful disincentive to such behaviour.⁶

Also, proponents of a set-aside wrongly assumed that the incumbents’ incentives to deter competitive entry far outweighed the incentives of regional providers and emerging competitors to buy spectrum. It is highly doubtful that well-established regional

⁴ New entrants were defined as those bidders who held less than 10% of the national wireless market based on revenue. Hence, while the three national incumbents were excluded, regional incumbents MTS and SaskTel were allowed to bid in the set-aside.

⁵ See generally Quebecor Media Inc., *To Industry Canada in Response to Canada Gazette Notice DGTP-002-07, Consultation on a Framework to Auction Spectrum in the 2 GHz Range including Advanced Wireless Services*, at 37-38 (May 25, 2007), [https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/DGTP-002-07-quebecor-Comments.pdf/\\$FILE/DGTP-002-07-quebecor-Comments.pdf](https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/DGTP-002-07-quebecor-Comments.pdf/$FILE/DGTP-002-07-quebecor-Comments.pdf); Comments of MTS Allstream Inc., *Consultation on a Framework to Auction Spectrum in the 2 GHz Range Including Advanced Wireless Services*, at 33 (Feb. 16, 2007), [https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/dgtp-002-07-MTS-Allstream-Comments.pdf/\\$FILE/dgtp-002-07-MTS-Allstream-Comments.pdf](https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/dgtp-002-07-MTS-Allstream-Comments.pdf/$FILE/dgtp-002-07-MTS-Allstream-Comments.pdf).

⁶ For a review of these arguments, see Steven Globerman, *An Assessment of Spectrum Auction Rules and Competition Policy*, at 22-24, Fraser Institute, Aug. 2013.

providers such as MTS and SaskTel would not have been willing to pay the fair market price for spectrum that they required to upgrade their networks. Without it, they would have become uncompetitive and likely suffered significant customer losses.

Similarly, Vidéotron and EastLink, two regional cable operators, also had a major incentive to bid aggressively for spectrum. Prior to the 2008 AWS auction, Vidéotron was providing wireless service on a resale basis by leasing wireless capacity from Rogers. Vidéotron's then president, Robert Dépatie, conceded that the resale model was "not at all viable in the middle and long term."⁷ For these two players, each of which already offered broadband Internet, television and wireline telephone service to its customers, acquiring spectrum was essential to maintaining their viability. Indeed, in Canada, as in most other developed countries, carriers offering a quadruple play service, which includes broadband Internet, television, and wireline and wireless telephone, are generally the most successful. These players already had strong customer bases in their respective markets due to their legacy services, and benefited from adding wireless to their offerings.

The 2008 AWS spectrum auction also resulted in the emergence of three "pure play" new entrants: Public Mobile, Mobilicity and WIND Mobile. For several years following the auction, the federal government hoped that one or more of these players would become strong competitors in the areas in which they operated (essentially in Ontario, Alberta and British Columbia). However, none of these players ended up being successful, gathering only a very small share of the market in each province market they had entered, as shown in **Table 1**, below.

⁷ Maxime Bergeron, *Dernière chance pour le sans-fil, dit le président de Vidéotron*, *La Presse*, Sept. 4, 2007, available at <http://affaires.lapresse.ca/economie/200901/06/01-679782-derniere-chance-pour-le-sans-fil-dit-le-president-de-videotron.php>.

Table 1
Wireless subscriber market share, by province, 2012 (%)

Province	Bell Group ²	TCC	Rogers	New entrants ³	Other ¹
British Columbia	18	40	39	3	0
Alberta	23	50	24	3	0
Saskatchewan	10	10	9	0	71
Manitoba	5	9	33	0	53
Ontario	28	20	44	6	1
Quebec	33	28	29	10	0
New Brunswick	58	23	19	0	0
Nova Scotia	54	29	16	0	0
Prince Edward Island	58	27	15	0	0
Newfoundland and Labrador	73	25	2	0	0
The North ⁴	90	0	0	0	10

1. "Other" includes MTS Allstream, SaskTel, and smaller WSPs.

2. "Bell Group" includes Bell Canada, Northwestel Mobility, Bell Mobility, Télébec, NorthernTel, SkyTerra, Virgin, and Latitude Wireless.

3. "New entrants" refers to the new wireless entities that acquired spectrum in Industry Canada's 2008 AWS spectrum auction.

4. The North includes Yukon, the Northwest Territories, and Nunavut.

Source: CRTC data collection

Source: Canadian Radio-television and Telecommunications Commission, *Communications Monitoring Report*, at 162, Sept. 2013,

<http://www.crtc.gc.ca/eng/publications/reports/policymonitoring/2013/cmr2013.pdf>.

Note: EastLink only launched its wireless network in 2013 and consequently had no market share in 2012.

By 2014:

- Public Mobile, which paid only C\$52.4 million for licenses at auction, and had only built a voice and text network, had been acquired by TELUS, one of the large incumbents.⁸ According to a U.S. Securities and Exchange Commission filing by TELUS, it paid C\$250 million in cash and assumed C\$116 million in liabilities to acquire the company,⁹ enabling Public Mobile to enjoy a significant windfall subsidized by taxpayers. TELUS is now in the process of migrating Public Mobile subscribers over to TELUS's faster 4G network.
- Mobilicity had filed for bankruptcy four months after Industry Canada, a department of the federal government responsible for managing spectrum and enforcing Canada's telecommunications legislation, prevented its sale to TELUS

⁸ Press Release, *TELUS and Public Mobile announce client-focused transaction*, (Oct. 23, 2013), available at <http://www.newswire.ca/fr/story/1247659/telus-and-public-mobile-announce-client-focused-transaction>.

⁹ TELUS Corporation, Form 40-F, at Exh. 99.4 (filed Mar. 14, 2014), available at http://www.sec.gov/Archives/edgar/data/868675/000110465914019833/a14-7537_1ex99d4.htm (Audited Consolidated Financial Statements as at and for the Year Ended December 31, 2013 and MD&A).

- for a price of C\$380 million – almost C\$140 million more than it paid for those licenses in 2008 with government subsidies;¹⁰ and
- WIND Mobile was declared “all but dead” by industry observers after its European-based financial backer, VimpelCom, wrote off its \$768-million investment in the start-up.¹¹

The AWS spectrum set-aside subsidized inefficient entry into the wireless market. The set-aside spectrum sold at a discount of about 30% compared to the spectrum open to bidding by all parties. A study by CIBC World Markets determined that this amounted to a \$617-million subsidy for new entrants at the expense of the Treasury and taxpayers.¹²

Well-established telecom players such as Vidéotron, MTS, SaskTel and EastLink very likely did not need the subsidy created by the set-aside in order to launch or improve their wireless networks. As for the new entrants that failed (Public Mobile, Mobilicity and WIND Mobile), it is likely that they would not have entered the market without the subsidy. The frequencies they acquired could have been put to better use – and sooner – by established players, which would have ultimately benefitted Canadian consumers.

As Carleton University economist Donald McFetridge warned before the 2008 AWS auction:

There are good reasons to believe that a fourth carrier induced by access to required inputs on concessionary terms to enter the market would not likely increase competition substantially. Indeed, it could well make competition less intense, hurting rather than benefiting consumers. There is an adverse selection issue here. Firms lining up for subsidies are typically not the best competitors or potential competitors in the market. Indeed, concessionary input prices are either a windfall for an entrant who would have been willing to pay the competitive price or they will attract a competitor who would not have entered if obliged to pay competitive prices for its inputs.

[...] To the extent that it succeeds, a subsidized new entrant may crowd out or delay competition that would have emerged from new technologies or business models. If it fails, there are costs to consumers as well as costs to the economy in terms of employee dislocation and specialized investments written off.¹³

¹⁰ Christine Dobby, *Mobilicity files for creditor protection*, *The National Post*, Sept. 30, 2014, available at http://business.financialpost.com/2013/09/30/mobilicity-files-for-creditor-protection/?__lsa=a103-ae0d.

¹¹ Howard Solomon, *Wind ‘all but dead’: Analyst*, *IT World Canada*, Mar. 6, 2014, available at <http://www.itworldcanada.com/article/wind-all-but-dead-analyst/90088>.

¹² Robert Bek and Michael Lee, *AWS Auction Finally Ends - \$4.25B Is A Big Tally*, CIBC World Markets, July 21, 2008.

¹³ Donald G. McFetridge, *Competition in the Canadian Mobile Wireless Telecommunications Industry*, Department of Economics, Carleton University, at 30 (May 24, 2007), [https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/dgtp-002-07-Telus-McFetridge-Competition-in-the-Can-Mobile-Wireless-Telecom-industry-24may07.pdf/\\$FILE/dgtp-002-07-Telus-McFetridge-Competition-in-the-Can-Mobile-Wireless-Telecom-industry-24may07.pdf](https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapj/dgtp-002-07-Telus-McFetridge-Competition-in-the-Can-Mobile-Wireless-Telecom-industry-24may07.pdf/$FILE/dgtp-002-07-Telus-McFetridge-Competition-in-the-Can-Mobile-Wireless-Telecom-industry-24may07.pdf). A review of spectrum auctions in the U.S., Canada and Europe by Analysis Group concludes that “restrictive and preferential participation rules disrupt the auction process, jeopardizing the benefits of releasing additional spectrum into the market. Restrictions also have reduced auction revenues, resulted in large amounts of fallow spectrum, and delayed or reduced a range of consumer benefits. Furthermore, these rules have proven ineffective – and counter-productive – as means to stimulate

Although the spectrum set-aside largely failed to bring about sustainable competition in the wireless sector, this did not deter the federal government from making further attempts to subsidize new entrants.

The 2014 700 MHz Spectrum Auction

The 700 MHz spectrum auction took place in January and February of 2014. In total 68 MHz were up for auction, divided into 7 license blocks in 14 service areas. This time however, instead of setting aside a portion of the frequencies as it had done in 2008, Industry Canada opted for a spectrum cap: out of four “prime” 700 MHz spectrum blocks that were to be auctioned off,¹⁴ each incumbent¹⁵ would be limited to acquiring only one. Collectively, the incumbents were permitted to bid on only a single “unrestricted” block of spectrum that was adjacent to one of the blocks of prime spectrum, meaning that one (but only one) of those incumbents could – by acquiring that complementary block – assemble a relatively large (24 MHz) block of spectrum that would facilitate deployment of particularly data-intensive services. Crucially, the rules also allowed new entrants (including new entrants from the 2008 AWS auction) to acquire not just one, but up to two of the prime spectrum blocks, and could also bid on the one additional complementary block.

Mobilicity and WIND Mobile did not participate in the auction due to their precarious financial situations.¹⁶ MTS and SaskTel (both regional incumbents) and EastLink predictably purchased licences in their respective regional markets, while the three national large incumbents acquired licences in all 10 provinces. Quebecor surprised observers by acquiring spectrum licenses not only in its home market of Quebec, but also in Ontario, Alberta and British Columbia, none of which has a solidly established fourth player.¹⁷

This prompted Industry Minister James Moore to declare victory in the government’s longstanding attempt to foster the emergence of a new player in every region of the country:

I think it’s great that [Quebecor is] looking beyond their traditional footprint in the province of Quebec to provide my home province of B.C., Alberta and the province of Ontario with a fourth player option. [...] The outcome of the auction

sustainable entry and/or alter the market structure in a way that enhances competition.” Robert Earle and David W. Sosa, *Spectrum Auctions Around the World: An Assessment of International Experiences with Auction Restrictions*, at 22, Analysis Group, July 2013.

¹⁴ These blocks are considered prime because they are “paired,” which means that they allow for sending and receiving data; they are in a range where interference from adjacent frequencies is limited; and they are the same frequencies being used in the U.S. by Verizon and AT&T, which means that handsets using these frequencies are already available.

¹⁵ Incumbents were defined as those with more than 10% of nationwide market share, or more than 20% market share in the areas where they had historically operated.

¹⁶ See Rita Trichur, *Wind Mobile pulls out of wireless auction*, *The Globe and Mail*, Jan. 13, 2014.

¹⁷ For detailed results, see Government of Canada, 700 MHz Spectrum Auction-Process and Results, <http://news.gc.ca/web/article-en.do?nid=816869>.

supports more choice for Canadians by enabling a fourth wireless player in every region of the country. There are those who doubted whether or not this would be realized in this auction. Those doubters have now been silenced.¹⁸

Despite these developments, it is far from certain that the efforts of the federal government to foster the emergence of and sustain a new wireless provider will be successful. Given the auction rules and the absence of any other significant bidder, Vidéotron was able to acquire its spectrum at what it describes as “an advantageous price.”¹⁹ – noting that the C\$0.83 MHz/POP price it paid for the spectrum “compares favourably with prices paid elsewhere in the world for similar spectrum.”²⁰ Robert Dépatie, now CEO of Quebecor (Vidéotron’s parent company), said “[g]iven the way the auction unfolded, Quebecor Media could not pass up the opportunity to invest in licenses of such great intrinsic value in the rest of Canada.”²¹ The company hasn’t even decided whether it would deploy its spectrum outside of Quebec or simply sell it for a profit at a later time. Dépatie recognized that Vidéotron could decide to “sit” on its newly acquired spectrum or “do something with it.”²² Worth noting, the company acquired just a single 5x5 MHz block in these areas, which would certainly limit the company’s ability to deploy a standalone network without further spectrum acquisitions or other business plans.²³

At this stage, few analysts expect Vidéotron to develop a network outside of Quebec.²⁴ Even if it did, there is no guarantee of success. Vidéotron has no cable network outside of Quebec and would not be able to offer quadruple play services to its clients in other provinces, leaving it in the same situation as the three failed new entrants that emerged after the 2008 AWS spectrum auction. As Mr. Dépatie acknowledged, “[w]e are well aware that some have tried to compete in the past in the Canadian wireless business and have struggled. Repeating the history is not our plan. [...] All of our energy in the next

¹⁸ Steven Chase, Rita Trichur and Sophie Cousineau, *Frenzied auction raises stakes in Canada's wireless war*, *The Globe and Mail*, Feb. 19, 2014, available at <http://www.theglobeandmail.com/report-on-business/ottawa-to-net-nearly-53-billion-from-spectrum-auction/article16980570/>.

¹⁹ Press Release, *Quebecor Media Acquires Seven Operating Licenses in Four Provinces at an Advantageous Price* (Feb. 19, 2014), available at <http://www.quebecor.com/fr/node/3521>.

²⁰ *Id.*

²¹ *Id.*

²² Sophie Cousineau, *Québecor waiting on Ottawa before expanding out of Quebec*, *The Globe and Mail*, Mar. 13, 2014, available at <http://www.theglobeandmail.com/report-on-business/quebecor-profit-jumps-beats-expectations/article17475427/>.

²³ See Roger Entner, *Recon Analytics, Two Out of Three: Number of Licenses, Speed And Cost*, Apr. 21, 2014, available at <http://reconanalytics.com/2014/04/two-out-of-three-number-of-licenses-speed-and-cost/> (noting that today, the best quality of service for delivering mobile data is achieved with channels that are 20 MHz and larger).

²⁴ For an analysis of what Vidéotron could do with its spectrum, see LuAnn LaSalle, *Regional partners seen as best bet for Videotron's wireless spectrum buy*, *The Canadian Press*, Feb 20, 2014, available at <http://www.canadianbusiness.com/business-news/regional-partners-seen-as-best-bet-for-videotrons-wireless-spectrum-buy/>; Christine Dobby, *How Quebecor's national wireless expansion could play out*, *The National Post*, Feb. 24, 2014, available at http://business.financialpost.com/2014/02/24/how-quebecors-national-wireless-expansion-could-play-out/?__lsa=a103-ae0d; Bertrand Marotte, *National Strategy no sure thing for Quebecor*, *The Globe and Mail*, Feb. 21, 2014.

months will be spent at determining whether the right conditions could be implemented before deploying additional resources in such a venture.”²⁵

In situations like this, where set-asides and caps alone do not sufficiently motivate subsidized competitors to invest and build networks to put their spectrum to use, governments are sometimes tempted to create those “right conditions” by imposing more subsidies.²⁶ These efforts further exacerbate the problem, because they tend to suppress investment in network infrastructure, and to create a business culture of regulatory dependency.

As we saw in the 2008 AWS auction, setting rules to either set aside spectrum for specific players or categories of participants is very unlikely to be successful in introducing additional lasting facilities-based competitors, and often results in unnecessary delays in putting spectrum to its highest and best use. “

Observations of the Canadian Market

Some are assuming that the results of the Canadian 700 MHz auction were based solely on Canada’s auction design, as opposed to the specific attributes of the Canadian wireless marketplace.

However, when looking at the outcome of the Canadian auction, more than 60% of the revenue generated from the 700 MHz auction (C\$3.3 billion) came from Rogers. Rogers’ appetite to secure the AB blocks at any cost could be explained by the need to match the 2 blocks of prime spectrum acquired by Bell and TELUS, given that the two have a network sharing agreement.²⁷ The Bell-TELUS agreement originated in 2008, when the two carriers agreed to jointly build an HSPA+ network, at a time when both companies used CDMA technology. At the time, Rogers was the only national wireless provider to use GSM technology in Canada, which allowed them to be the exclusive carrier of Apple’s iPhone and the Blackberry Bold. The network upgrade took effect in November 2009, and helped Bell and TELUS transition to fourth-generation LTE technology. It is expected that Bell and TELUS will continue their partnership, allowing them to deploy their spectrum more economically across the country. Absent this network sharing agreement, Rogers would likely not have bid as aggressively, and the agreement clearly has an impact on bidding.

Conclusion

²⁵ *Supra* note 22.

²⁶ For example, Industry Minister James Moore announced in December 2013 that he will soon introduce legislation to cap roaming fees. This measure will be in place until the CRTC, which is now investigating the issue, makes its own decision.

²⁷ The A block was also viewed as more valuable than it used to be as a result of resolution of interoperability issues in the U.S. in October 2013.

Prior to spectrum auctions, Industry Canada allocated spectrum pursuant to “beauty contests,” which were decided based on each firm’s expertise and capability. Beauty contests were abandoned in the late 1990s and replaced by auctions, which are a more efficient method of assigning spectrum licenses. Because auctions mimic a market process, it is possible to find out which actor values spectrum the most and is going to put it to the most productive use, thus enhancing consumer welfare. And it is impossible for the regulator to know, *a priori*, what a “fair market price” may be for the spectrum that is to be auctioned.

In order for the auction process to foster efficient competition, there ought to be a level playing field between various bidders. Asymmetric rules regarding the acquisition of spectrum such as set-asides or spectrum caps prevent efficient competition and the optimal allocation of resources. Some players that might not otherwise have entered the market will be enticed to do so when offered privileged access. Even a faulty business plan can become promising when it is enabled by subsidies worth hundreds of millions of dollars. The misallocation of resources only becomes evident further down the road, when the business ventures hit a breaking point and cannot be artificially sustained any longer.

The massive investments needed to stay ahead of the technological curve have done a lot more to enhance consumer welfare than the appearance or disappearance of any one player. Although regulators can use auction restrictions to help increase the number of companies that have access to spectrum, experience proves time and again that regulators cannot bring about actual competition beyond what the market can support. As shown by the Canadian experience, subsidizing the entrance of new players into the mobile market while hampering the growth of existing providers does not lead to more competition. On the contrary, it leads to a waste of resources and delays the use of spectrum at a time when companies need more and more of it to answer consumer demand.

Paul Beaudry is an associate at Stikeman Elliott LLP and an associate researcher at the Montreal Economic Institute. Martin Masse is a senior writer and editor at the Montreal Economic Institute (iedm.org). They both are former policy advisors to Canada’s Minister of Industry.